NRC INSPECTION MANUAL

NMSS/FCSS

INSPECTION PROCEDURE 88071

CONFIGURATION MANAGEMENT PROGRAMMATIC REVIEW

PROGRAM APPLICABILITY: 2600

88071-01 INSPECTION OBJECTIVES

The objectives of this procedure are to determine through review of the configuration management and change control program, whether:

- 01.01 The licensee or certificate holder has established an effective configuration management system to evaluate, implement, and track each permanent plant modification to the site which could affect safety.
- 01.02 The licensee or certificate holder's configuration management system ensures that permanent plant modifications do not degrade the performance capabilities of items relied on for safety (IROFS) or other safety controls that are part of the safety design base.
- 01.03 The licensee or certificate holder's configuration management system effectively identifies and resolves the effects of permanent plant modifications to IROFS and other safety controls, processes, equipment, computer programs, and activities of personnel.

88071-02 INSPECTION REQUIREMENTS

02.01 <u>Programmatic Review</u>. This procedure will be performed if, based on the results of an inspection performed according to Inspection Procedure 88070, Plant Safety Modifications, it was determined that there were programmatic or significant noncompliance issues with the licensee or certificate holder's performance due to the configuration management and change control program.

88071.03 INSPECTION GUIDANCE

03.01 <u>Programmatic Review</u>. If the inspection performed according to Inspection Procedure 88070, Plant Safety Modifications, determined that a programmatic review of the licensee or certificate holder's configuration management system and change control program was necessary, the following inspection guidance should be used:

a. Configuration Management.

1. <u>Configuration Management Program</u>. The licensee or certificate holder should have a well developed and documented configuration management program for generation and retention of documents that define the establishment and maintenance of the plant Integrated Safety Analysis (ISA)

and other safety systems not part of the ISA.

- (a) Determine whether the program requires an appropriate level of supervisory review of procedure development.
- (b) Determine whether the program defines the interaction between operations, radiation protection, fire protection, nuclear criticality safety (NCS), engineering, maintenance, and other support functions.
- (c) Determine whether the documents define the site and facility design bases, and unit process descriptions, including:
 - (1) Piping and instrumentation diagrams (P&IDs);
 - (2) Process materials flows;
 - (3) Floor plans;
 - (4) Special nuclear material movement controls;
 - (5) Safety analyses for postulated accident pathways including safety limits and control systems to prevent accidents;
 - (6) Maintenance requirements for the IROFS and other safety control systems;
 - (7) Training requirements for the safety limits and control systems;
 - (8) Maintenance, calibration and surveillance for safety control systems; and
 - (9) Inspection and audit requirements.

The records generated and maintained should include ISAs and other safety analyses, facility and process descriptions, IROFS, procedures, training requirements, and internal inspection/audit procedures.

The review of the configuration management system evaluates its formalization, capabilities, and coordination between safety and other plant functions. The configuration management system is expected to maintain current design basis documentation and technical support information.

The review of the configuration management system should include both top-down and bottom-up inspection methods. The top-down method identifies and evaluates modifications through documentation first, then conducting field evaluations. The bottom-up method identifies and evaluates modifications by plant walkdowns, and subsequently evaluating the relevant documentation.

- 2. <u>Engineering Change Notices</u>. For those plant configurations that are modified in accordance with approved engineering change notices, ensure that the configuration management system identifies all ISAs, safety evaluations and procedures that may be affected.
- 3. <u>Safety Evaluations/ISAs</u>. All safety evaluations/ISAs should be maintained in the configuration management system and should identify the processes, process equipment, accident pathways, IROFS, safety limits on controlled parameters, nuclear criticality safety (NCS) control systems and postings, and training requirements. The safety evaluations/ISAs should clearly document all assumptions, analysis methods, and staff members who performed them.
- 4. <u>Maintenance, Calibration, and Surveillance of Safety Systems</u>. The configuration management system should include the engineered control systems in the maintenance program. It should include the required schedules for preventive maintenance, calibrations, and surveillances. It should provide adequate controls to ensure appropriate replacement parts are used in safety control systems.
- 5. <u>Configuration Control Training</u>. Plant staff should be trained on and be familiar with the configuration management system. Interview selected plant staff, including managers, engineers, operators, and maintenance personnel, to evaluate whether their knowledge of the configuration management system is adequate.

b. <u>Change Control Program</u>.

 Implementation. The change control program should be implemented by written procedures. Determine whether the procedures identify the process for effecting changes. Evaluate whether the procedures include adequate instructions for change requests, including responsibilities for preparing process descriptions, IROFS, safety limits and controls, maintenance and surveillance procedures, inspection and verification procedures and records, NCS postings, and updated inspection and audit requirements. Determine whether pre-operational inspections were conducted for changed operations.

Change control should be inspected by looking for both recent and pending changes and comparing the current approved safety basis requirements to implementation documents such as operating procedures, safety postings and training modules.

2. Change Control Documentation/Design Review. Determine by observation, discussion, and document review that written procedures exist for safety system/ISA change control. Determine whether the procedures identify the process for effecting change, including a requirement for operations to approve a change request, responsibility for preparing documents for process description, safety/ISA limits and controls, maintenance and surveillance procedures, pre- and post- inspection and verification

procedures and records, postings, and post-change inspection and audit requirements.

3. <u>Verification</u>. Determine by observation, discussion, and document review that an appropriate change control program is in place and is effective for analyses established since the last inspection. Determine whether pre-operational inspections were conducted for changed operations.

Determine whether post-modification testing maintains the plant in a safe configuration during testing. Determine whether the post-modification testing assured adequate implementation of design and safety system functionality.

88071-04 RESOURCE ESTIMATE

An inspection performed using this inspection procedure is estimated to require 16 hours of inspector resources. This estimate is only for the direct inspection effort and does not include preparation for and documentation of the inspection.

88071-05 REFERENCES

American National Standards Institute/American Nuclear Society (ANSI/ANS)-8.1-1998, "Nuclear Criticality Safety in Operations with Fissionable Materials Outside Reactors," American Nuclear Society, La Grange Park, IL, dated 1998

NUREG-1513, "Integrated Safety Analysis Guidance Document," dated May 2001

NUREG-1520, "Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility," dated March 2002

END

ATTACHMENT 1

Revision History for IP 88071

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
N/A	07/28/06 CN 06-019	IP 88071 has been issued because of the need for a new Inspection Procedure for Configuration Management Programmatic Review.	None	N/A	ML061780381